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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/757,039

01/14/2004

Ronald E. Rygielski

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06/28/2007

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EXAMINER

TEDOM, CLEMENT N

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/757,039

Applicant(s)

RYGIELSKI ET AL.

Examiner

Clement N. Tedom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 01/14/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because figure 5 is of poor quality. Corrected drawing sheets in compliance with 37 CFR.1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Barney et al,

PGPUB 20020072875 (hereinafter Barney),

With respect to Claim1

Barney teaches a plurality of controllers and a communication network connecting each of the controllers (See section [0004], lines 3-6); determining a time synchronization function is enabled (See section [0004], lines 6-8, as well as section [0011], where establishing an operating characteristic is substantively the same as synchronization function, as well as section [0015], lines 5-10, where synchronization is performed only when machine is operating);

Barney further teaches determining a time difference between said communications network time and said module reference time provided by said module (See section [0019]); determining that said determined time difference is greater than a first limit, and less than or equal to a second limit; and gradually adjusting, (See section [0020], lines 6-10, where one clock is held or paused, until the difference has been reduced or eliminated) automatically, said network communications network time to synchronize with said module reference time over a predetermined synchronization interval (See section [0019], lines 9-12], as well as section [0021], as well as section [0020], line 12-16, where synchronization is automatic, where synchronization is done over an interval).

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With respect to Claim 2

Barney teaches the limitation of claim 1 for the reason above

Barney further teaches gradually adjusting results in a reduction of said time difference between said communications network time and said module reference time that is substantially constant and without a time reversal. (See section [0021], where by setting local time to official time means reducing difference between the two to zero, as well as section [0020], lines 1-10, where local time synchronization is either done by fast forwarding the clock or pausing the clock, but never backward which is substantively the same as reverse)

With respect to Claim 3

Barney teaches the limitation of claim 1 for the reason above

Barney further teaches determining a system change is requested; and in response to said system change request, immediately synchronizing, automatically, said communications network time and said module reference time (See section [0020], lines 1-3)

With respect to Claim 4

Barney teaches the limitation of claim 3 for the reason above.

Barney further teaches two of the alternative limitation of claim 4 which is; system change is a module being initialized for providing said module reference time (See section [0019], lines 1-7, where master controller is the reference controller), and a user-initiated time synchronization (See section [0022], lines 5-12, where an operator will perform the synchronization)

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With respect to Claim 5

Barney teaches the limitation of claim 1 for the reason above.

Barney further teaches determining that said time difference between said communications network time and said module reference time is greater than a third limit that is greater than said second limit (See section [0022], lines 1-4); and in response to said time difference being greater than said third limit, taking no automatic action to synchronize said time difference between said communications network time and said module reference time. (See section [0022], lines 4-13, where no action is automatically taken; by the system as oppose to be manually updated by a technician)

With respect to Claim 6

Barney teaches the limitation of claim 1 for the reason above.

Barney further teaches module is designated a master module and only said master module provides said module reference time (See section [0019], lines 1-7).

With respect to Claim 7-11

Claims 7-11 appears to recite the same limitation as claim 1-5, except for a storage medium having instruction to perform the above limitation

Barney disclose controller that inherently comprise medium storage suitable to carry the instruction to perform the above limitation (see section [0009]).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barney et al, PG PUB 20020072875 (hereinafter Barney), further in view of Kirk, Patent No 4709347, (hereinafter Kirk).

With respect to Claim 12

Barney teaches a plurality of controllers and a communication network connecting each of the controllers (substantively the same as module) (See section [0004], lines 3-6); with one of the controller a master controller (see section [0019], lines 1-3).

Barney does not teach module comprising:

a processor; a network interface for providing a communication interface to said communications network; a bus interface for providing a communication interface to a host processor; and a system clock subsystem for providing said module reference time and for controlling a time synchronization function to reduce a time difference between said communications network time and said module reference time.

Kirk which is in the same field of endeavor (clock synchronization in a network), disclose a clock synchronization system with a master station and slave station (See abstract, lines 1-4, as well as column 1, lines 60-68, column 2, lines 31-36), comprising

A processor (See figure 2, item 36-04, as well as column 4, lines 57-65), a network interface (See figure 2, item 18-04, as well as column 4, lines 12-18), a bus interface (figure 2, item 16-04, as well as column 4, lines 12-13), and a system clock (see fig 2, item 48-04, as well column 5, lines 5-10).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a module comprising a processor, network interface, bus interface and system clock subsystem in order to synchronize to a desired degree of accuracy the timing subsystems of the modules of a distributed local area network by the master and the slave (See abstract, lines 1-5)

With respect to Claim 13-17

Barney in view of Kirk teaches the limitation of claim 12 for the reason above.

Claims 13-17 appears to recite the same functions as claims 2,1,3,4 and 5, respectively as discussed above.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement N. Tedom whose telephone number is (571) 270-01827. The examiner can normally be reached on Monday-Friday, 7:30-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on (571) 272-2194. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CT

A handwritten signature in black ink, appearing to read "Charles D. Garber", with a long horizontal flourish extending to the right.

CHARLES D. GARBER
SUPERVISORY PATENT EXAMINER